PCT WORLD INTELLECTUAL PROPERTY ORGANIZATION International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 7 : C07D 311/38, C07C 49/245, 49/248, 49/747, C12N 1/00, A23L 1/30, A61K 31/353, A61P 35/00 — A1

(11) International Publication Number: WO 00/66576

(43) International Publication Date: 9 November 2000 (09.11.00)

(21) International Application Number: PCT/AU00/00392

(22) International Filing Date: 1 May 2000 (01.05.00)

(30) Priority Data:
PQ0082 30 April 1999 (30.04.99) AU

(71) Applicant (*for all designated States except US*): G.J. CONSULTANTS PTY LTD [AU/AU]; 21 Kooloona Crescent, West Pymble, NSW 2073 (AU).

(72) Inventor; and

(75) Inventor/Applicant (*for US only*): JOANNOU, George, Eustace [AU/AU]; 21 Kooloona Crescent, West Pymble, NSW 2073 (AU).

(74) Agent: SPRUSON & FERGUSON; GPO Box 3898, Sydney, NSW 2001 (AU).

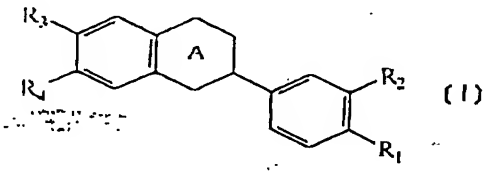
(81) Designated States: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published

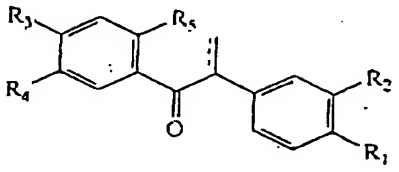
With international search report.

With amended claims.

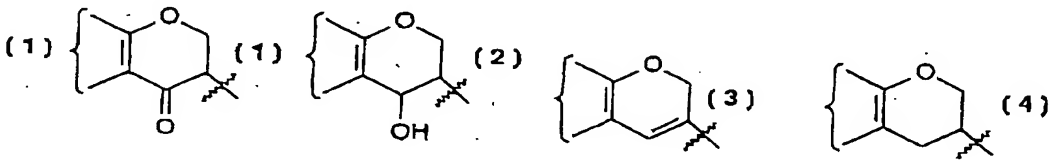
(54) Title: ISOFLAVONE METABOLITES



(I)



(II)



(57) Abstract

There are disclosed compounds of formulae (I) or (II) in which A is selected from the group consisting of (1), (2), (3) and (4);OH, and one of R_1 and R_2 is selected from H, OH and OCH_3, and the other of R_1 and R_2 is selected from OH and OCH_3; one of R_3 and R_4 is selected from H, OH and OCH_3, and the other of R_3 and R_4 is selected from OH and OCH_3; provided that at least one of the pairs R_1, R_2 and R_3, R_4 are both OH; R_5 is selected from OH and OCH_3; and ------ denotes a single or double bond; and pharmaceutically acceptable salts and prodrugs thereof. The compounds of the invention are useful for the treatment of hormone-dependent conditions and cancers.